Electrical Engineering

Electrical Engineering is a broad multi-disciplinary doctoral programme providing graduates with the ability to work in a variety of fields ranging from traditional electrical engineering and energy sector to biomedical engineering and robotics and nanotechnology and further to communications engineering. Based on a strong mathematical and natural science basis, the curriculum is flexible, allowing each doctoral candidate to compile her/his own combination of courses and research according to her/his own interests. The programme covers all disciplines of the School of Electrical Engineering and allows multi-disciplinary co-operation across Aalto University.

The Aalto Doctoral Programme in Electrical Engineering was established on 1 January 2011. It comprises 24 fields of research. The Programme is a joint effort of the Departments of Electronics and Nanoengineering (ELE), Signal Processing and Acoustics (SPA), Electrical Engineering and Automation (EEA), and Communications and Networking (TLV), as well as the Metsähovi Radio Observatory and Micronova - the Research Centre for Micro- and Nanotechnology.

The degree

The Doctor of Science (Tech) degree is 40 ECTS credits of theoretical studies and dissertation thesis which means four years of full-time studies. The Licentiate of Science (Tech) degree is 40 ECTS credits of theoretical studies and licentiate thesis which means two years of full-time studies. The extent of the licentiate and doctoral degrees consist of theoretical studies and research work. The emphasis is on research work. See more detailed description of the degree.

Research fields in Doctoral Programme in Electrical Engineering

The research field is chosen when applying to the programme. Descriptions of the research field can be found at Degree structure and coursework page.

- Acoustics and Audio Signal Processing
- Advanced materials and photonics
- Applied Electronics
- Automation, Systems and Control Engineering
- Bioelectronics and Instrumentation
- Communications Engineering
- Electromagnetics and Circuit Theory
- Electromechanics
- Electronics integration and reliability
- Illumination Engineering and Electrical Building Services
- Information Theory
- Measurement Science and Technology
- Micro- and Nanoelectronic Circuit Design
- Micro- and nanosciences
- Network Economics
- Networking Technology
- Power Electronics and Electric Drives
- Power Systems and High Voltage Engineering
- Radio Engineering
- Signal Processing for Communications
- Signal Processing Technology
- Space science and technology
- Speech and Language Technology
- User Interfaces

News

Kampusravintolat / Campus restaurants / Campusrestauranger
13 hours ago

Join Solve the SDGs online hackathon on Sep 18 – Sep 20 and earn 2 ECTS!
09.09.2020

AaltoWikissa käytökatko tiistaina 15.9.2020 klo 9-14 | Maintenance break on AaltoWiki on Tuesday, 15 September from 9 am to 2 pm
11.09.2020

Aalto Wellbeing Week 2020 goes online & outdoors
11.09.2020
CANCELLED! Aalto 10k & 5k Sports Event 20.9.2020
10.09.2020

Ongelmia MyCourses-palvelussa | Problems in MyCourses service
07.09.2020

Kestävän kehityksen tavoitteet kurssiesitteissä | Sustainable Development Goals added to syllabi | Målen till hållbar utveckling i kursbeskrivningar
04.09.2020

Otaniemen kampuksen poikkeusaukioloajat | Exceptionella öppettider på Otaniemi campus | Otaniemi campus exceptional opening hours
03.09.2020

Entrepreneurship studies at Aalto Ventures Program
02.09.2020

Energialukutaidosta helpotusta ilmastoahdistukseen
21.08.2020

RSS